Nice

CE

4024 Kit
5024 Kit

Swing gate operator

Instructions and warnings for installation and use

Nice

1 GENERAL SAFETY WARNINGS AND PRECAUTIONS

1.1 - Safety warnings

- **CAUTION! - This manual contains important instructions and warnings for personal safety.** Wrong installation can cause serious injuries. Before starting work read all the manual carefully. If in doubt, stop installation and ask the Nice Assistance Department for clarifications.
- **CAUTION! – Important instructions: keep this manual for any possible future requirement for maintenance and disposal of the product.**

1.2 - Warnings for installation

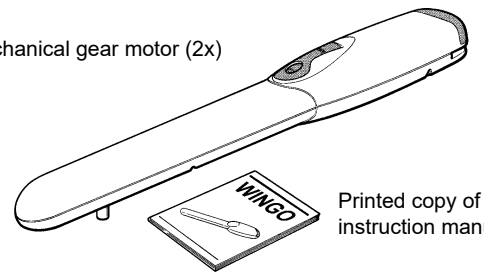
- Before installing check if this product is suited to automating your gate or door (see chapter 3 and "Technical features of the product"). If unsuitable, DO NOT proceed with the installation.
- Include a disconnection device in the power supply system with an opening distance between the contacts to permit full disconnection in the conditions dictated by the category of surcharge III.
- **All the installation and maintenance operations must occur with the automation disconnected from the electrical power supply.** If the disconnection device of the power supply is not visible from the area where the automatism is located, before starting the work it is necessary to attach a sign with the text "CAUTION! MAINTENANCE IN PROGRESS" on the disconnection device.
- During installation handle the automatism with care avoiding crushing, knocks, falls or contact with liquids of any kind. Do not place the product near sources of heat, or expose it to naked flames. All these activities can damage and cause malfunctions or dangerous situations. If this occurs, stop the installation immediately and contact the Nice Assistance Department.
- Do not make alterations to any part of the product. Operations which are not permitted will cause only malfunctions. The manufacturer declines any liability for damage caused by arbitrary alterations to the product.
- If the gate or the door to be automated is fitted with a pedestrian door it is necessary to include a control system in the installation to prevent the operation of the motor when the pedestrian door is open.
- Check there are no trapping points towards fixed parts when the leaf of the gate is in the maximum Open position, if necessary protect these parts.
- The push button control on the wall must be positioned in sight of the automation, away from the moving parts, at a minimum height of 1.5 m from the ground and it must not be accessible to the public.
- The product packaging material must be disposed of respecting the local regulations in force.

2 DESCRIPTION OF THE PRODUCT AND ENVISAGED USE

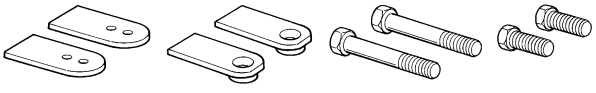
This product is intended to be used for automating swing gates or doors in an exclusively residential context. **CAUTION! – Any other use different to that described and in ambient conditions different to those set out in this manual is to be considered improper and forbidden!**

The product is an electromechanical gear motor, equipped with a 24 v high duty cycle electric motor and worm drive.
The gear motor is powered by the external control unit to which it is connected. In the event of a black out, it is possible to move the gate leaves by hand, by manually releasing the gear motor.

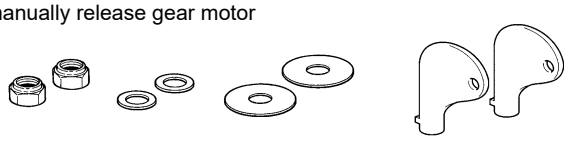
electromechanical gear motor (2x)



Printed copy of the instruction manual



Tongues and hardware for gate mounting brackets and keys to manually release gear motor



3 INSTALLATION

3.1 - Checks before installation

Before installation, check the integrity of the components, suitability of the model chosen and suitability of the environment chosen for the installation.

IMPORTANT – The gear motor cannot automate a manual gate which does not have a safe and efficient mechanical structure. Furthermore, it cannot solve the faults caused by wrong installation or bad maintenance of the gate itself.

3.2 - Suitability of the gate to being automated

- Check the mechanical structure of the gate is suited to being automated and conforms to the national laws in force (if necessary make reference to the da-ta on the gate label).
- Moving the gate leaf manually in Open and Close position, check the move-ment occurs with equal and constant attrition at each point of the stroke (there must be no moments of greater effort).
- Check the gate leaf remains balanced, that it does not move if brought man-ually to any position and left stopped.
- Check the space around the gear motor allows to manually unblock the gate leaf, easily and safely.
- Check the surfaces chosen for installing the product are solid and can guar-antee stable fixing.
- Check the gate is no more than 68mm from the back of the post it is hung from otherwise it will not work.

3.3 - Limits of Gate Leaf Size and Weight

Before installing **make sure the gate isn't too large or heavy for the gear motor. For gates clad with metal sheeting, timber palings, aluminium slats or hardwood battens with small gaps between them then each gate leaf should be no wider or higher than 2m. If the gate has aluminium slats, hardwood battens or timber palings that are widely spaced then the gate can be as wide as 2.4m but no higher than 1.2m or if its made from aluminium tubing or steel wire that lets wind blow through then each leaf can be as wide as 2.6m and no higher than 1.2m.**

3.4 - Preparing for installation

Fig. 1 shows an example of an automation system designed with **Nice** com-ponents. These components are positioned according to a typical and usual
scheme.
Making reference to **fig. 1**, decide the approximate position in which to install each component envisaged by the system and the most appropriate connec-
tion diagram.

Useful components for producing a complete system (fig. 3):

A - Electromechanical gear motors
B - Couple of photocells
C - Couple of stop blocks (in Opening)
D - Columns for photocells
E - Flashing signaling device with incorporated antenna
F - Key selector switch or digital keypad
G - Control unit

3.5 - Installation the mounting brackets and gear motor

There are three sets of mounting brackets available for the gear motor, which depend of the position of the gate relative to the post, the size of the post and whether the gate is opening inwards or outwards.
Fig.3, 4 and 5 show how the different mounting brackets that apply to different gates, hinges and posts. These Brackets can be purchased from Grant s utomation www.grantsautomation.com.au.
f you can t find a bracket that suits your gate you can either make your own with reference to those in this manual and information on Grant s utomations website or get Grant s utomation to design and make it for you.The Post Mounting Bracket (PMB) is fitted first with the height being determined by the gate rail the Gate Mounting Bracket (GMB) is fitted to. Refer Fig.6. Then the motor must be fitted to the PMB (Fig.7) and connected to the gate controls (Fig.8). The controls are then powered up and used to drive the motor to its closed position, with the Gate Mounting Bracket fitted (Fig.9) find the location on the gate and fit the Gate Mounting Bracket. With the motor in manual release the open hard stop can now be set to set the open position of the gate (Fig.2).

3.6 - Setting the built in hard stop

The built in hard stop allows the stop position of the gate leaf to be set without using mechanical stops on the gate itself. Fig.2 shows how to do this.

Figure 1

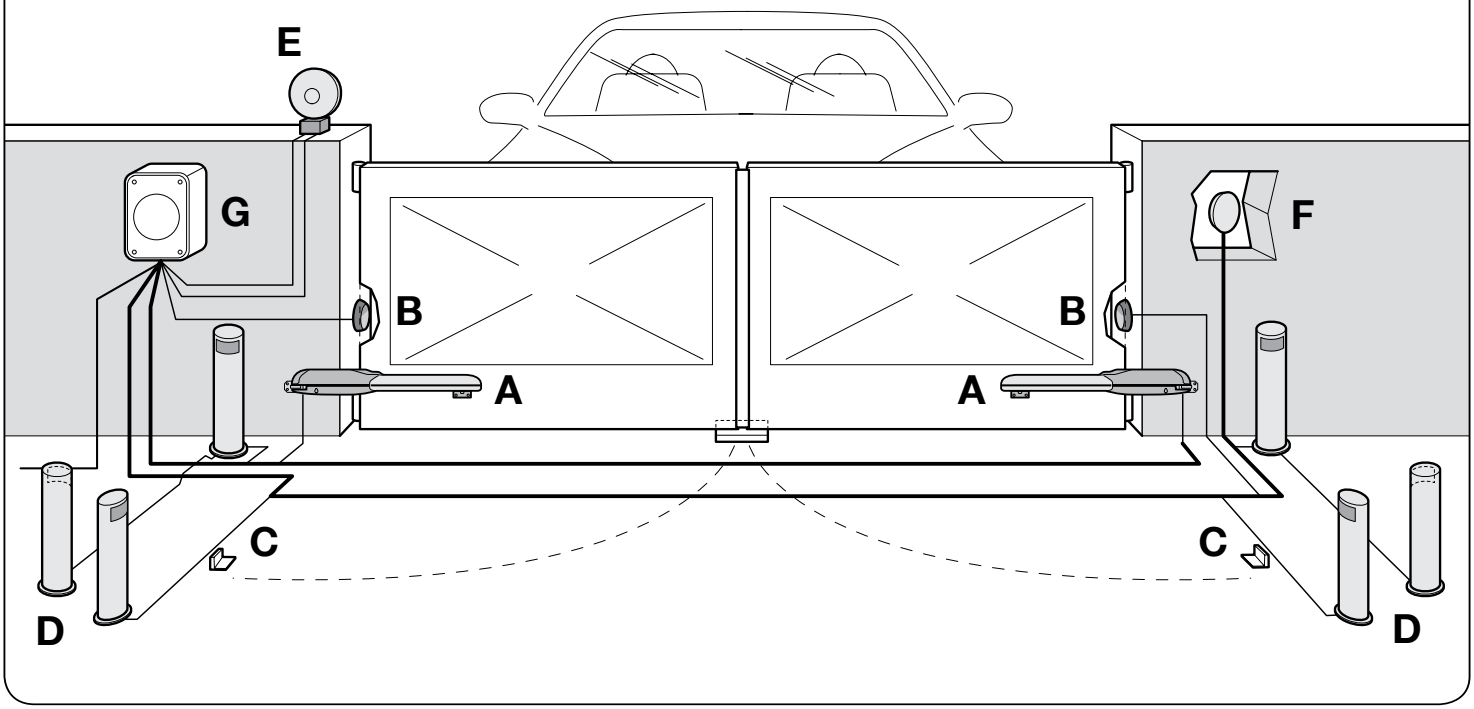


Figure 2

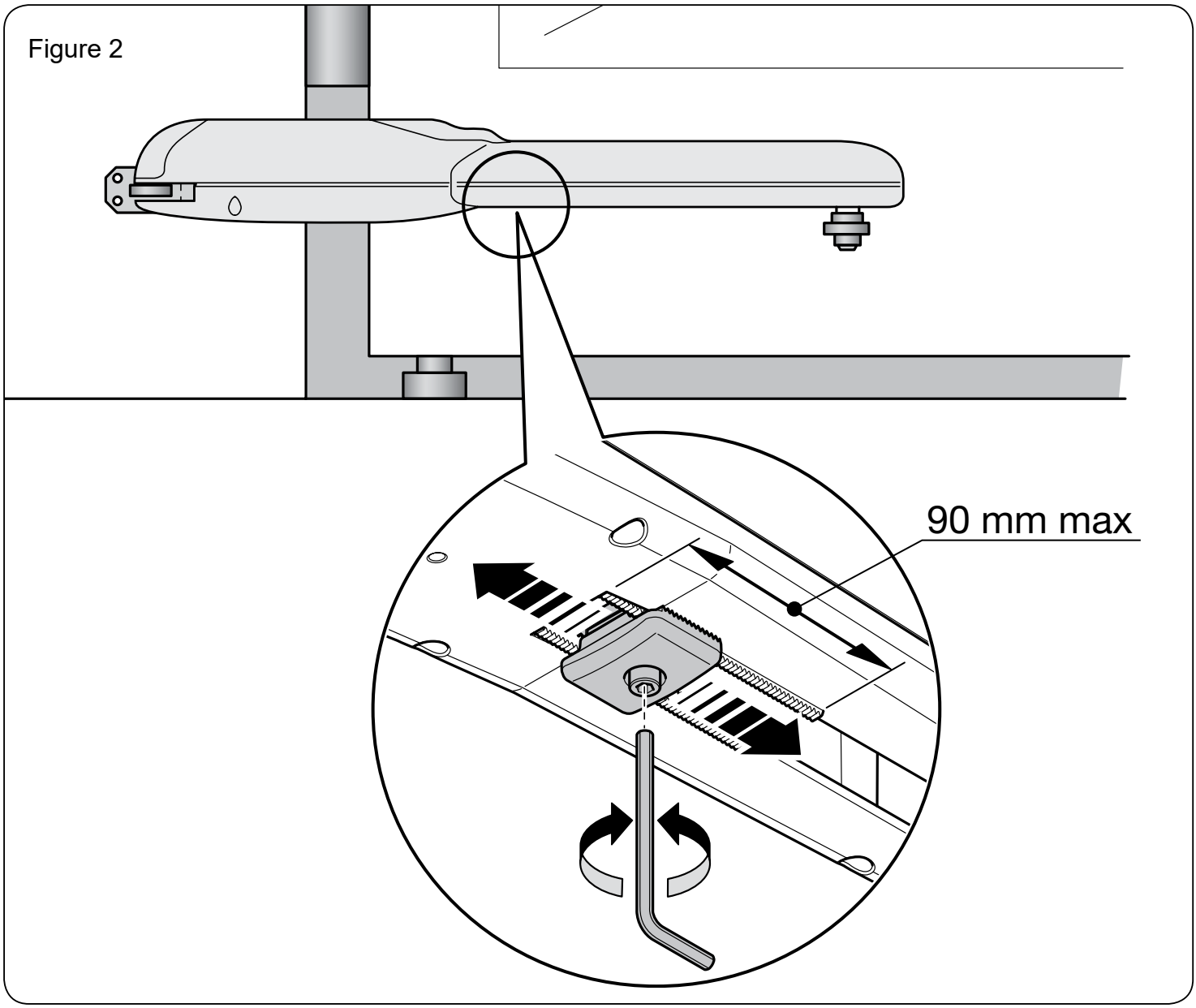
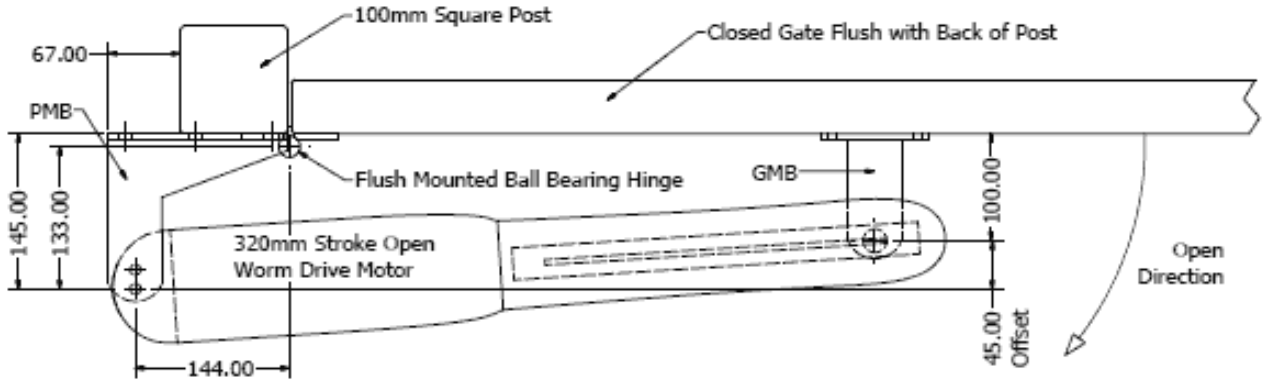
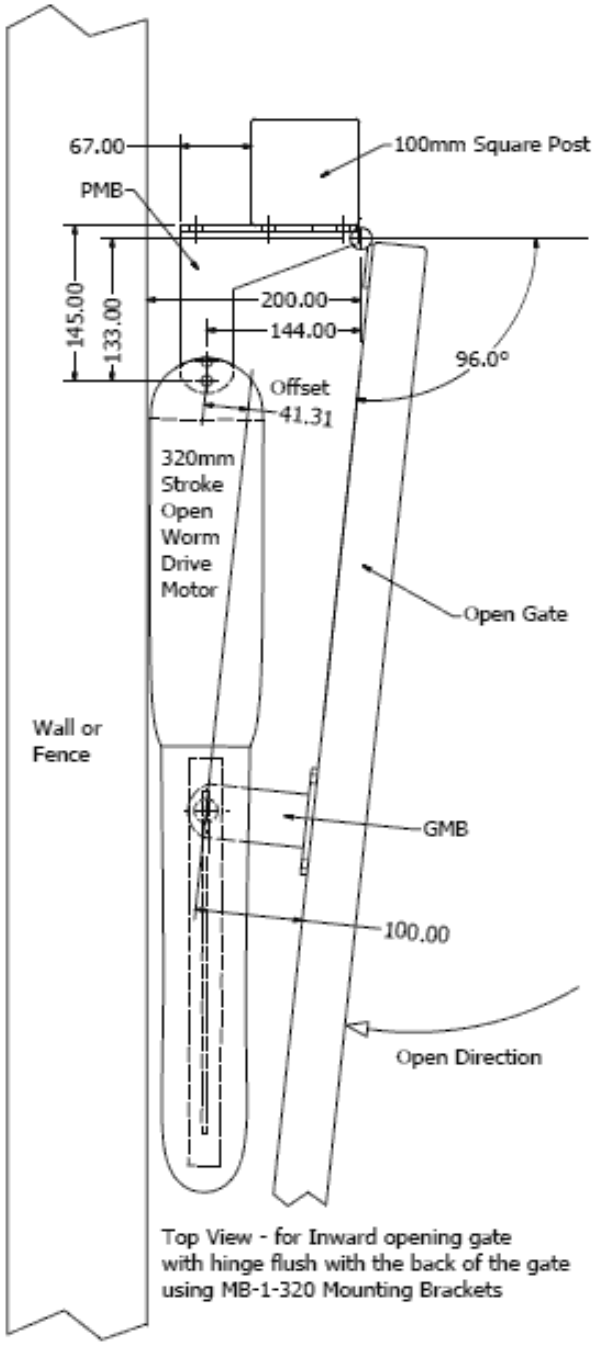


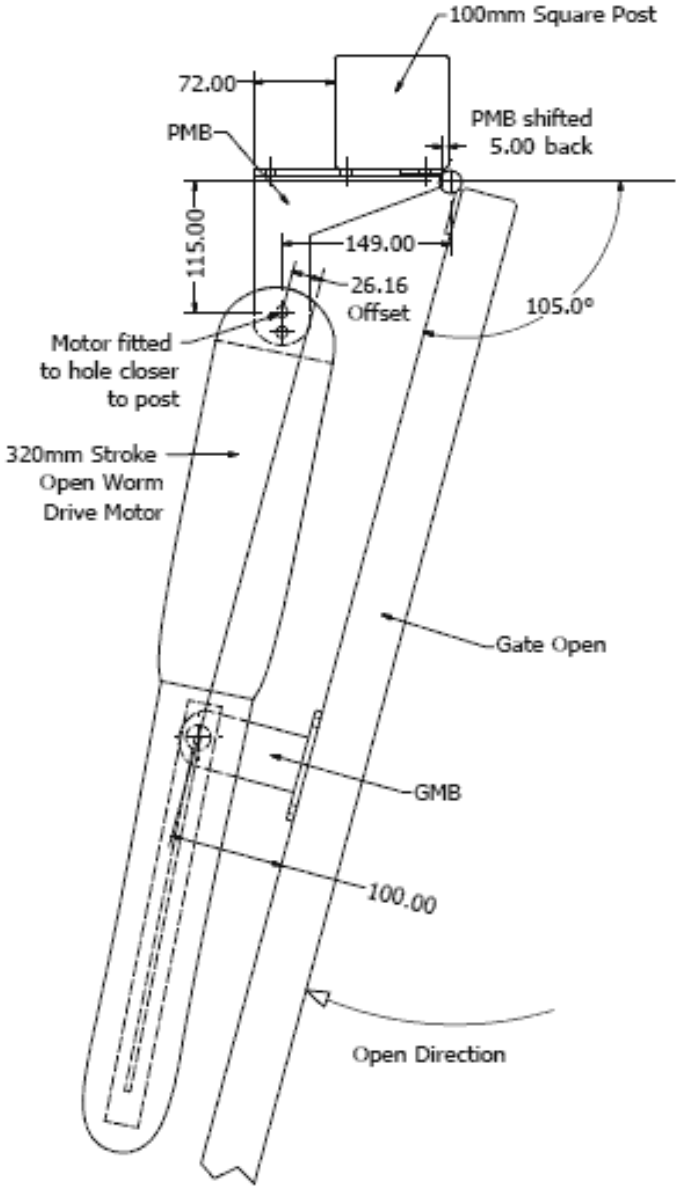
Figure 2 - MB-1-320 - Mounting Brackets for Inward Opening Gates flush with the Back of the Post



Top View - for Inward opening gate with hinge flush with back of gate using MB-1-320 Mounting Brackets



Top View - for Inward opening gate with hinge flush with the back of the gate using MB-1-320 Mounting Brackets



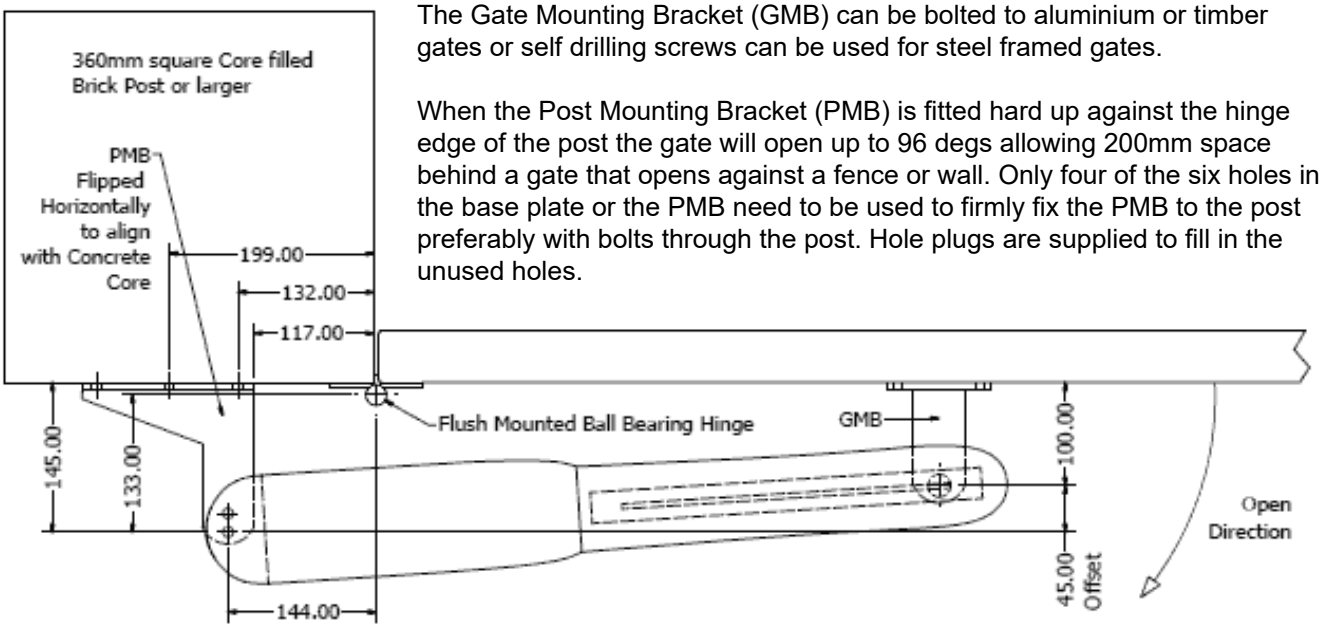
Top View - for Inward opening gate with hinges flush with the back of the gate using MB-1-320.

This set of mounting brackets are longer than the MB-2-320 brackets and are for when gates are flush with the back of the post.

They come with base plates ready to be bolted or screwed to a gate and its post. Suitable for use with King Couper, Nice Wingo 4024 and Centsys Vert-X Swing Gate Motors. The brackets are for use with posts from 100mm square metal or timber to wider concrete or square brick posts. The hinges with this style of gate would normally be a ball bearing or similar type mounted flushed to the back of the post and gate. The brackets a all made from zinc plated steel.

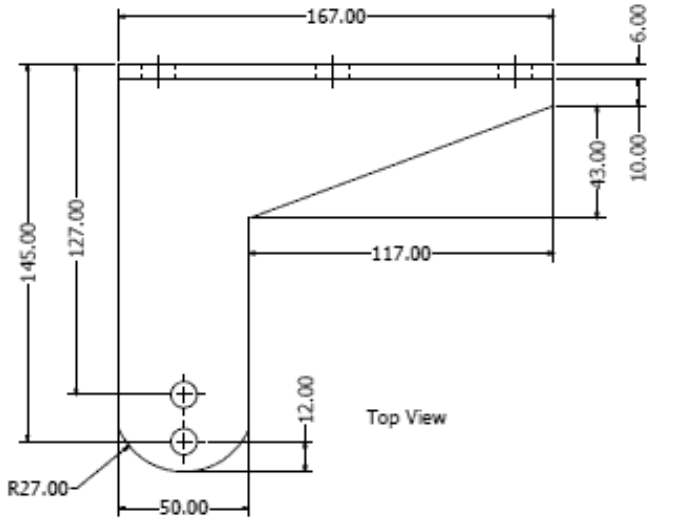
The Gate Mounting Bracket (GMB) can be bolted to aluminium or timber gates or self drilling screws can be used for steel framed gates.

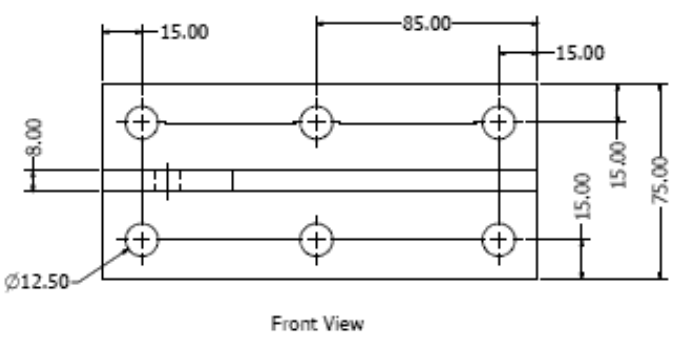
When the Post Mounting Bracket (PMB) is fitted hard up against the hinge edge of the post the gate will open up to 96 degs allowing 200mm space behind a gate that opens against a fence or wall. Only four of the six holes in the base plate or the PMB need to be used to firmly fix the PMB to the post preferably with bolts through the post. Hole plugs are supplied to fill in the unused holes.



Top view - for Inward opening gate with hinges flush with the back of the gate using MB-1-320 Mounting Brackets

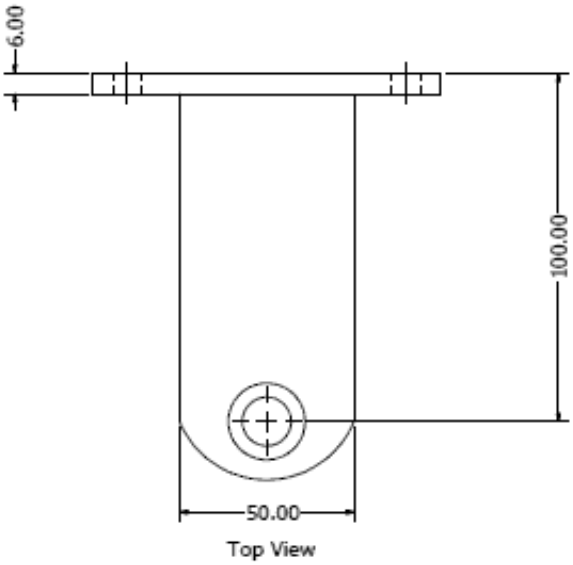
Post Mounting Bracket (PMB) - Dimensions for MB-1-320



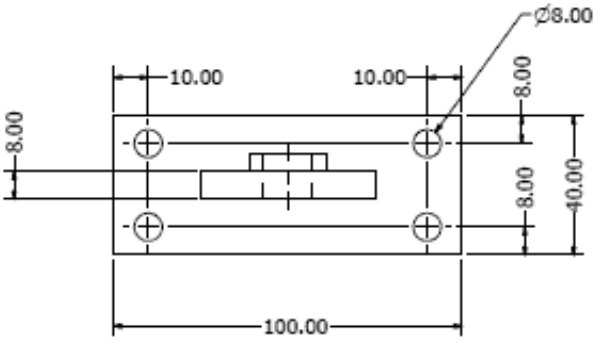


Front View

Gate Mounting Bracket (GMB) for MB-1-320

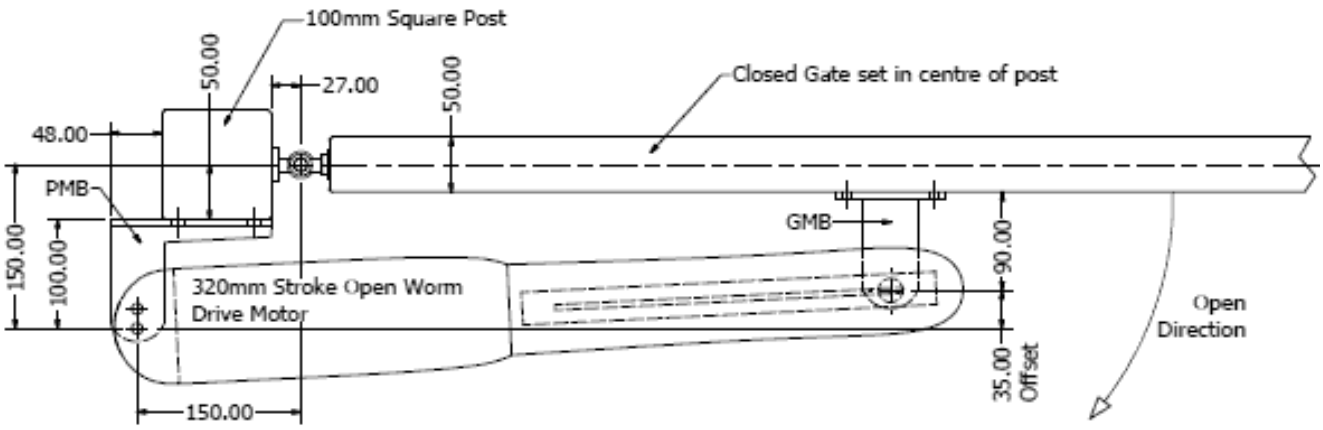


Top View

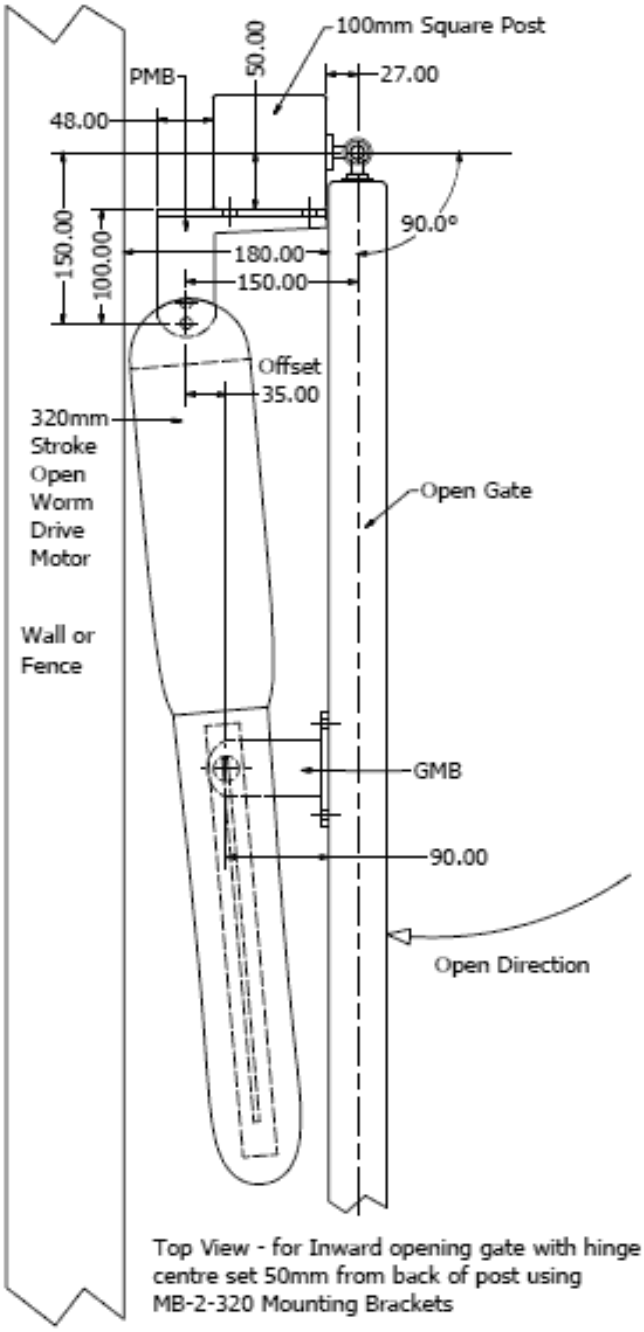


Front View

Figure 3 - Mounting Brackets for Inward Opening Gates set in from the Back of the Post



Top View - for Inward opening gate with hinge centre set 50mm from back of post using MB-2-320 Mounting Brackets



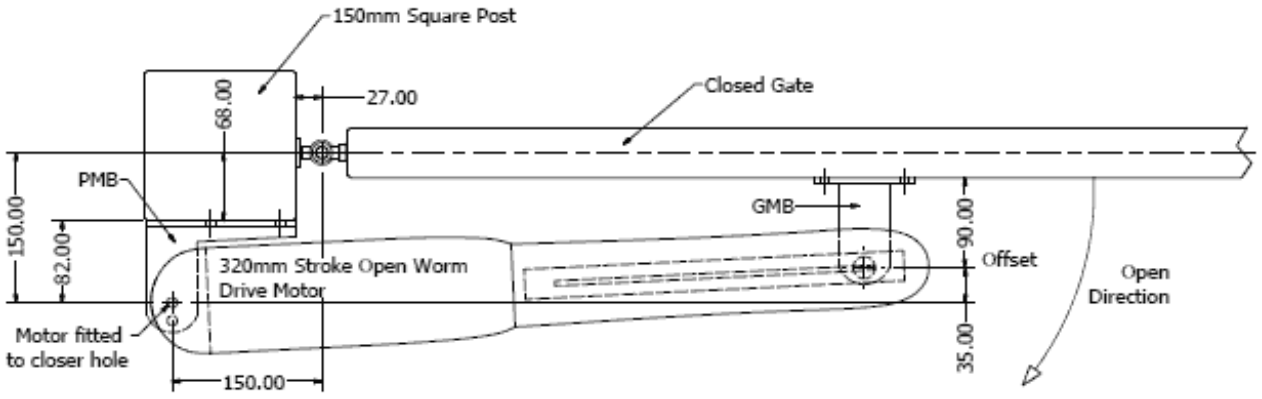
Top View - for Inward opening gate with hinge centre set 50mm from back of post using MB-2-320 Mounting Brackets

This set of mounting brackets are shorter than the MB-1-320 brackets and are for when the gate is set in from the back of the post by 50mm or 68mm.

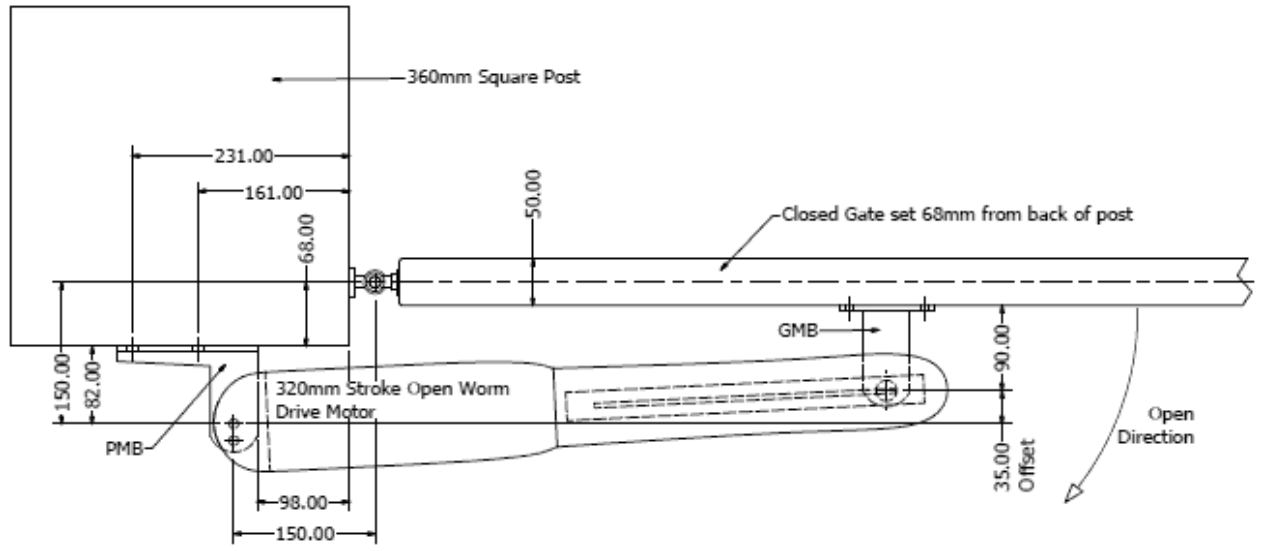
They also come with a base plate ready to be bolted or screwed to a gate and its post. Suitable for use with King Couper, Nice Wingo 4024 and Centsys Vert-X Swing Gate Motors. The brackets are for posts from 100mm square metal or timber to wider concrete or square brick posts. The hinges with this style of gate would normally be trunnion and gudgeon or similar centred with the gate frame. The brackets are all made from zinc plated steel.

The Gate Mounting Bracket (GMB) can be bolted to aluminium or timber gates or self drilling screws can be used for steel framed gates.

When the Post Mounting Bracket (PMB) is fitted hard up against the hinge edge of the post the gate will open up to 90o allowing 180mm space behind a gate that opens against a fence or wall. If the hinge is more than 27mm from the post then the PMB may be placed closer to the hinge to maintain the 150mm from the hinge pivot point to the motor mounitn point. The two holes where the motor mounts onto the PMB determine whether the gate is 50mm or 68mm from behind the back of the post. 68mm is the maximum the gate can go from the back of the post, other wise the gate won't open fully. If the gate is set some where between 50mm or 68mm then a 10mm hole can be drilled between the existing motor mounting holes and the bracket set away from the hinge edge of the post enough to maintain the distances of 150mm x 150mm from the motor mounting point to the hinge pivot point. If the gate is less than 50mm from the back of the post then MB-1-320 brackets can be used and cut back with some new holes drilled or a bracket can be custom made (see the custom mounting brackets option).

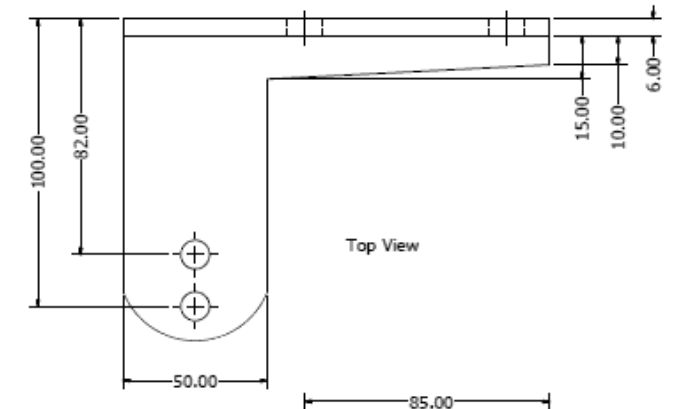


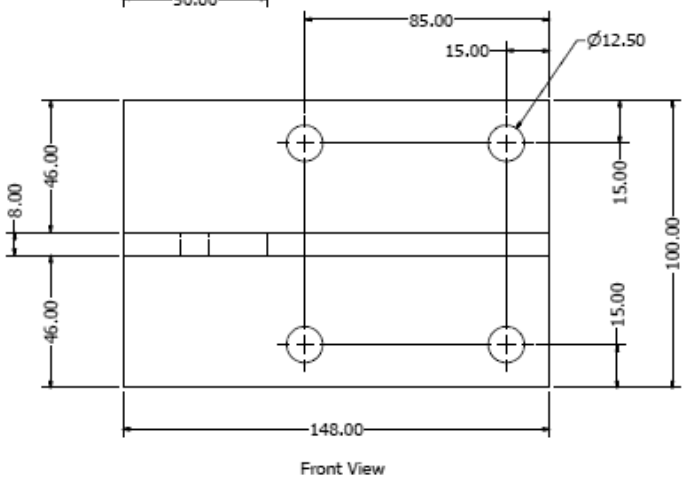
Top View - for Inward opening gate with hinge centre set 68mm from back of post using MB-2-320 Mounting Brackets



Top View - for Inward opening gate with hinge set 68mm from back of post using MB-2-320 Mounting Brackets

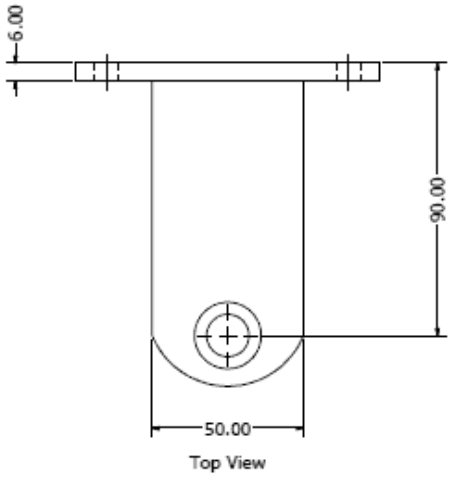
Post Mounting Bracket (PMB) for MB-2-320



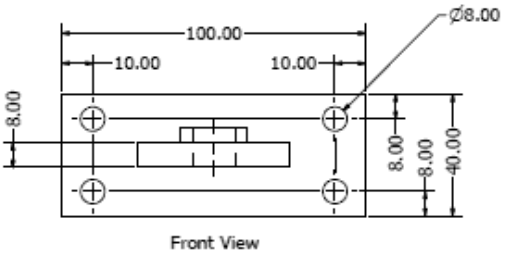


Front View

Gate Mounting Bracket (GMB)

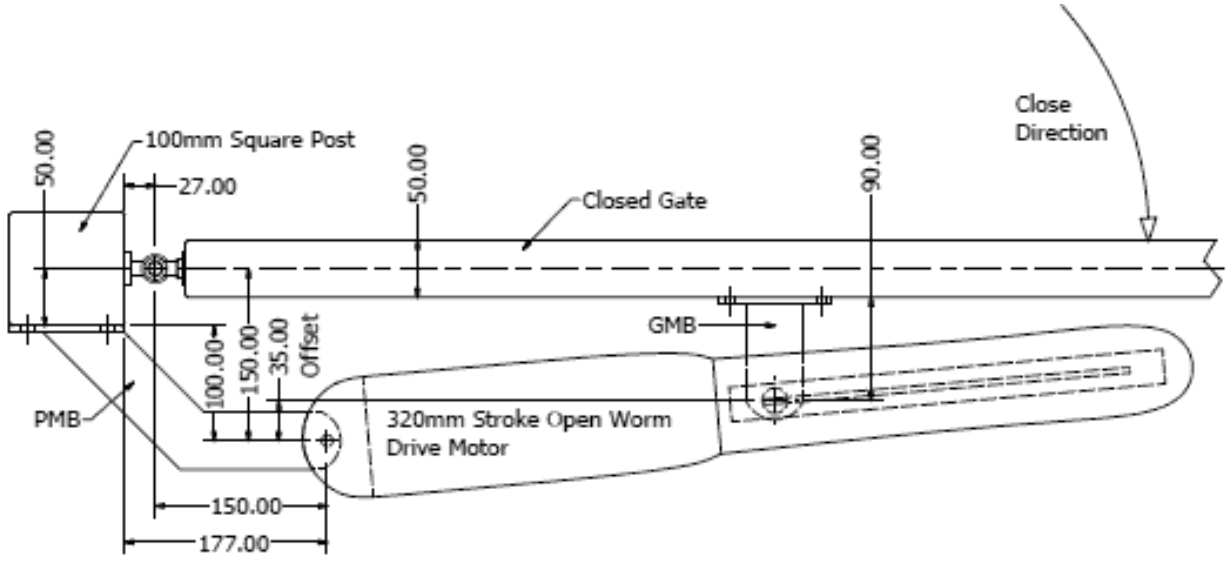


Top View

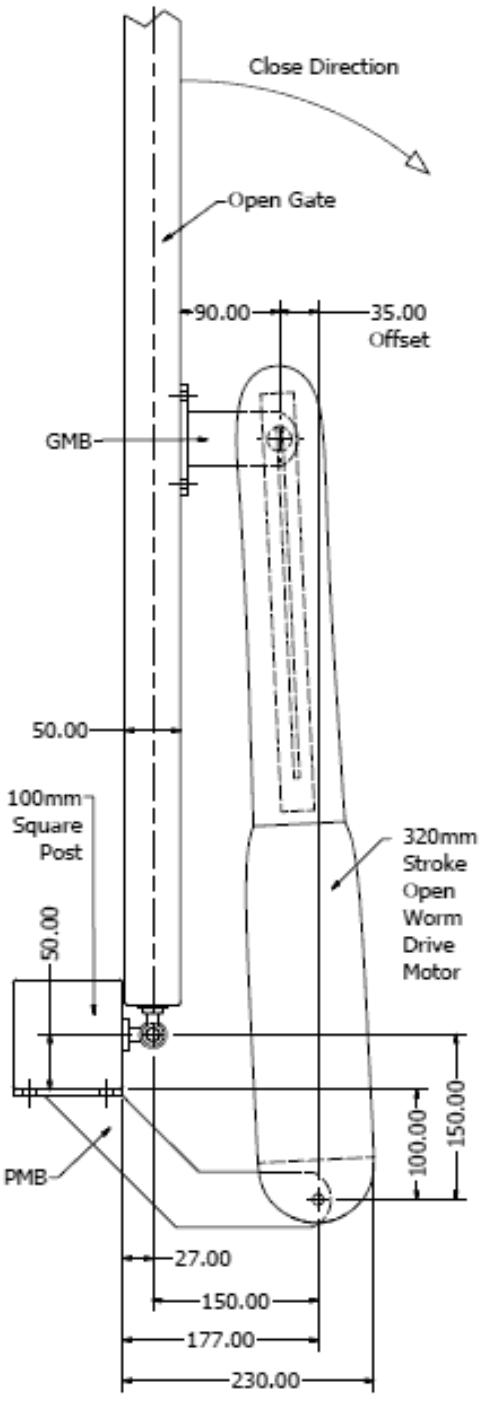


Front View

Figure 4 - MB-3-320 - Mounting Brackets for Outward Opening Gate on Narrow Posts



Top View - for Outward opening gate with hinge set 50mm from back of post using MB-3-320 Mounting Brackets



Top View - for Outward opening gate with hinge set 50mm from back of post using MB-3-320 Mounting Brackets

This set of mounting brackets are a lot different to the others because the post mounting bracket has to span into the gateway from the back of a narrow post for when gates open outwards and the motors are still inside the property.

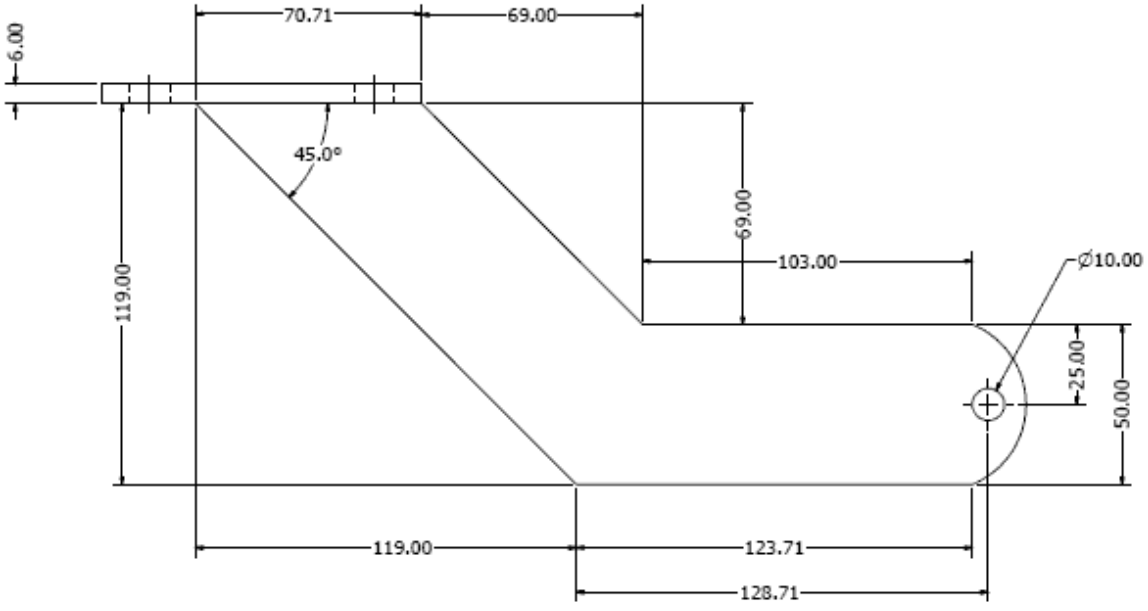
They also come with a base plate ready to be bolted or screwed to a gate and its post. Suitable for use with King Couper, Nice Wingo 4024 and Centsys Vert-X Swing Gate Motors. The brackets are for use with Outward Opening Swing Gates that have their Frame set 50mm from the back of a post from 100mm square metal or timber. The hinges with this style of gate would normally be trunnion and gudgeon or similar centred with the gate frame. The brackets are all made from zinc plated steel.

The Gate Mounting Bracket (GMB) can be bolted to aluminium or timber gates or self drilling screws can be used for steel framed gates.

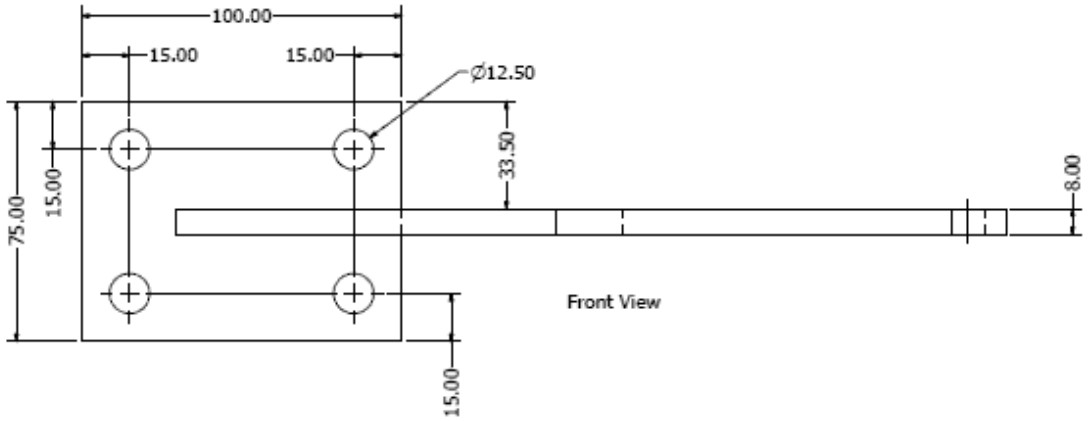
When the Post Mounting Bracket (PMB) is fitted hard up against the hinge edge of the post the gate will open up to 90o and the motor protrudes into the gate opening by 230mm. If the hinge is more than 27mm off the post the PMB can be placed further towards the hinge to maintain the 150mm between the motor mounting point and hinge pivot point. If the gate isn't 50mm from the back of the post the PMB will need to be made with a different offset from the back of the post to maintain the 150mm from the motor mounting point to the hinge pivot point (see the custom made mounting brackets option). This bracket could be used for wider post if the gate was set 50mm from the back of the post.

Note: For outward opening gates it is necessary to move the built in hard stop to the other end of the motor and reverse the motor wires.

Post Mounting Bracket (PMB) for MB-3-320



Top View



Front View

Figure 6

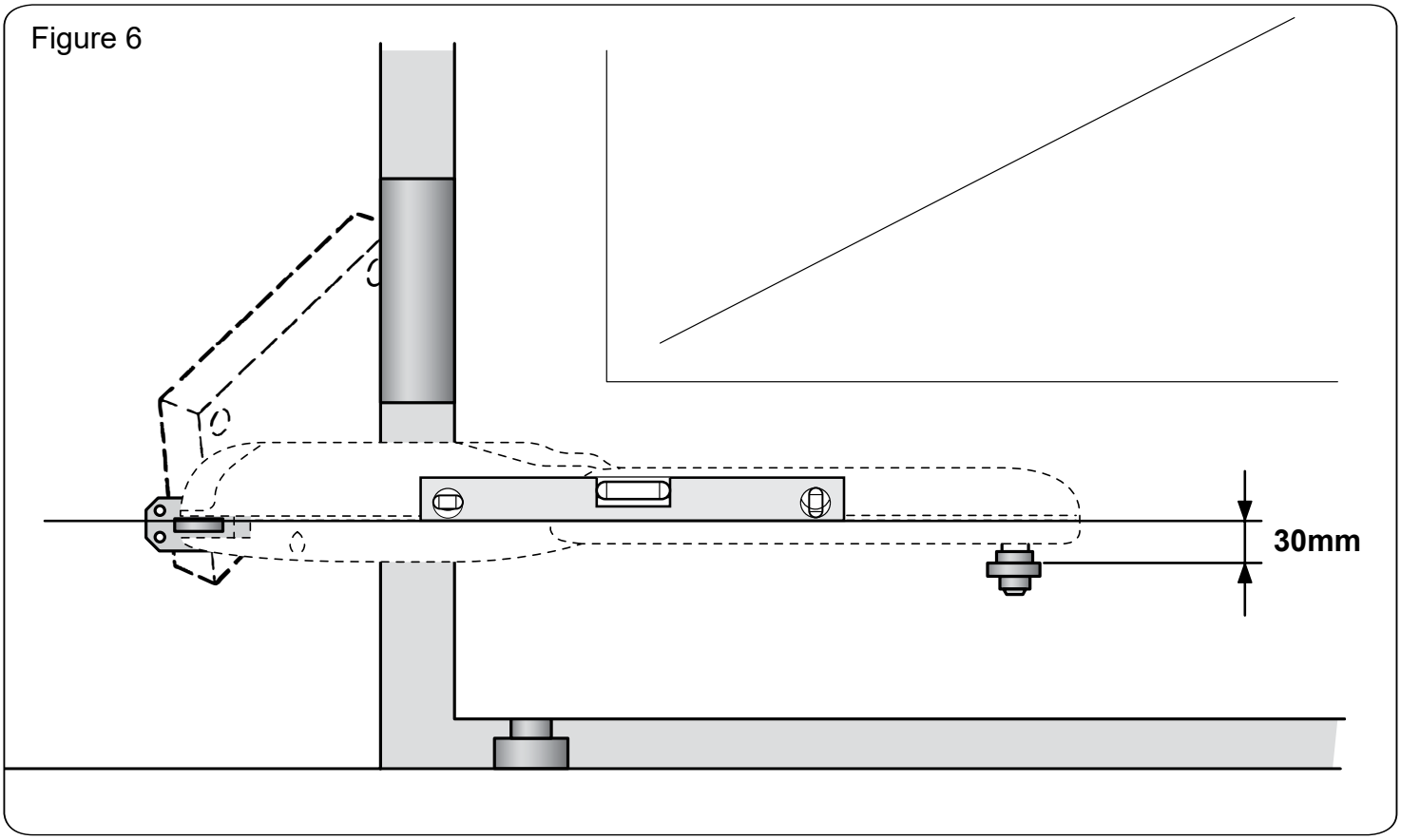


Figure 7

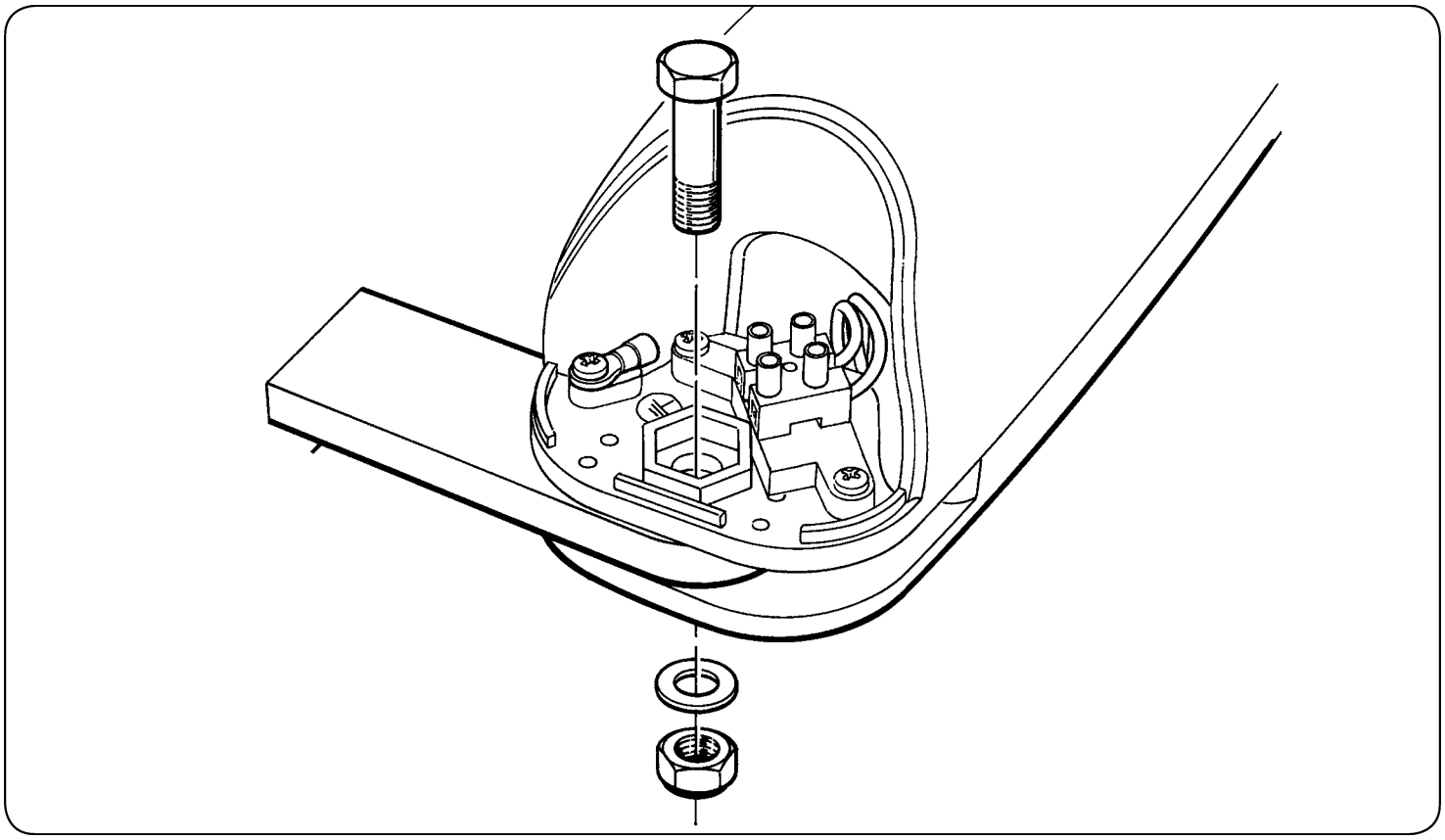


Figure 8

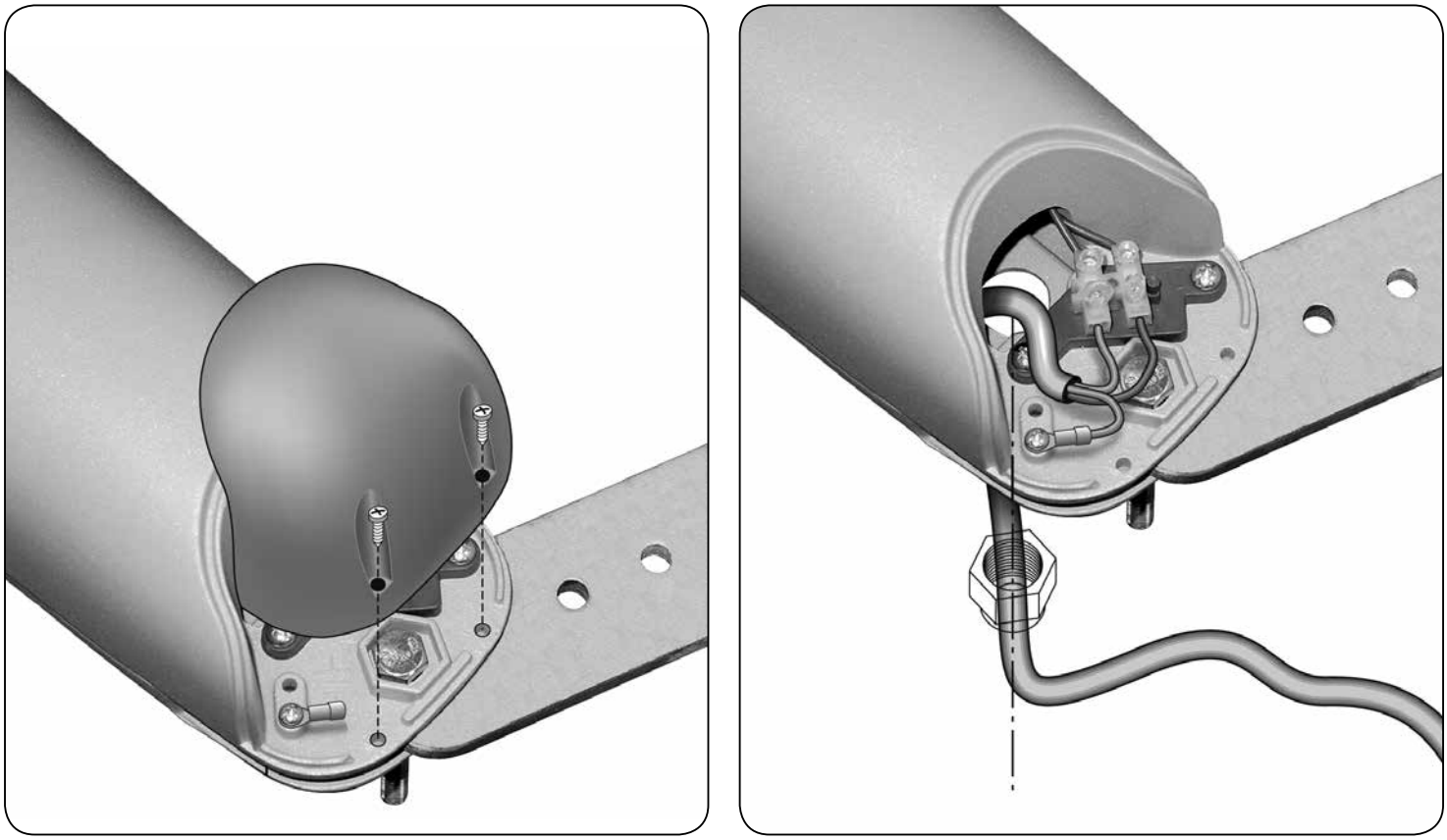
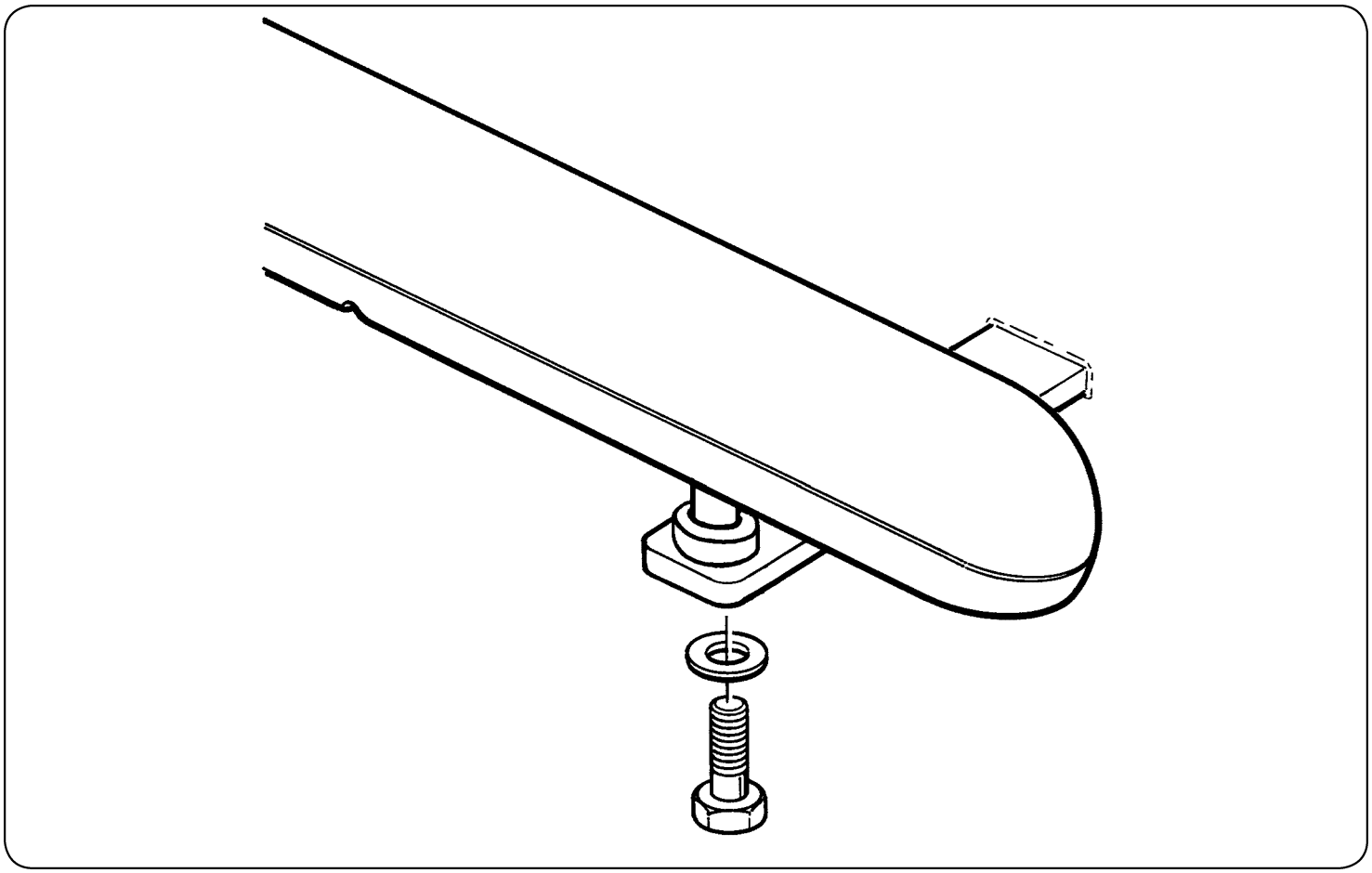


Figure 9



4 ELECTRICAL CONNECTIONS

CAUTION!

– A wrong connection can cause faults or danger; therefore follow scrupulously the connections set out.

– Perform the connection operations when the electricity is off.

To connect the gear motor to the control unit, proceed as follows:

01. Remove the lid of the gear motor as shown in **fig. 12**;

02. Slacken the gearmotor cable clamp, thread the connecting cable through the hole and connect the three electric wires as shown in **fig. 13**;

03. Replace lid on gear motor.

To check the connections, direction of rotation of the motor, phase shift in the movement of the leaves and setting the limit switch, refer to the instructions manual of the control unit.

IMPORTANT – With a gate configured with opening towards the outside invert the power supply wires with respect to the standard installation.

5 INSPECTING THE AUTOMATION

This is the most important phase in realising the automation to guarantee maximum safety. The inspection can be used also to periodically check the devices which make up the automatism.

The inspection of the entire system must be performed by expert and qualified staff who must take responsibility of the tests requested, depending on the risk involved and to check compliance of what is set out by laws, rules and regulations and in particular all the requirements of regulation EN 12445 which establishes the testing methods to verify gate automatisms.

Inspection

Each single component of the automatism, for example sensitive edges, photocells, emergency shutdowns, etc. requires a specific inspection phase; for these devices follow the procedures shown in the respective instruction manuals. For inspection of the gear motor follow the operations below:

01. Check that everything in this manual and in particular in chapter 1 has been rigorously complied with;

02. Unblock the gear motor as shown in **fig. 14**;

03. Check it is possible to manually move the leaf when opening and closing with a force no greater than 390N (approx. 40 kg);

04. Block the gear motor and connect the electrical power supply;

05. Using the control or shutdown devices envisaged (key selector switch, control buttons or radio transmitters), perform a number of opening, closing and stopping tests of the gate and check it behaves as it should;

06. Check the correct operation of all the safety devices one by one in the system (photocells, sensitive edges, emergency shutdown, etc.) and check the gate behaves as it should;

07. Command a closing manoeuvre and check the force of the impact of the leaf against the end of the mechanical limit switch. If necessary, try to unload the pressure, finding a setting which gives better results;

08. If the dangerous situations caused by the movement of the leaf have been protected by limiting the force of impact the force must be measured as required by regulation EN 12445;

Note – The gear motor is not provided with torque setting devices, such regulations are done by the Control unit.

Putting into operation

This can occur only after having performed, with positive results, all the inspection phases of the gear motor and other devices present. To put it into operation refer to the instructions manual of the control unit.

IMPORTANT – It is forbidden to put into partial or provisional operation.

6 PRODUCT MAINTENANCE

To keep the level of safety consistent and to guarantee maximum life of the entire automation it is necessary to maintain it regularly.

The maintenance must be performed in line with the safety instructions of this manual and according to what is set out by the laws and regulations in force. For the gear motor a programmed maintenance within no more than 6 months is required.

Maintenance operations:

01. isconnect any sources of electricity.

02. Check the status of deterioration of all the materials which make up the automation with particular attention to signs of erosion or oxidation of the structural parts replace the parts which do not provide sufficient guarantees.

3. Check the screw connections are sufficiently tight.

4. Check the bolt and worm drive are suitably greased.

5. Check the wear of the moving parts and, if necessary, replace used parts.

6. Reconnect the sources of electrical power and perform all the tests and checks envisaged in chapter .

Durability of the product

Durability is the average economic life of the product. The value of durability is strongly influenced by the demand index of the manoeuvres performed by the automatism: that is the sum of all the factors which contribute to the wear of the product (see Table 2).

To establish the probable durability of your automatism proceed as follows:

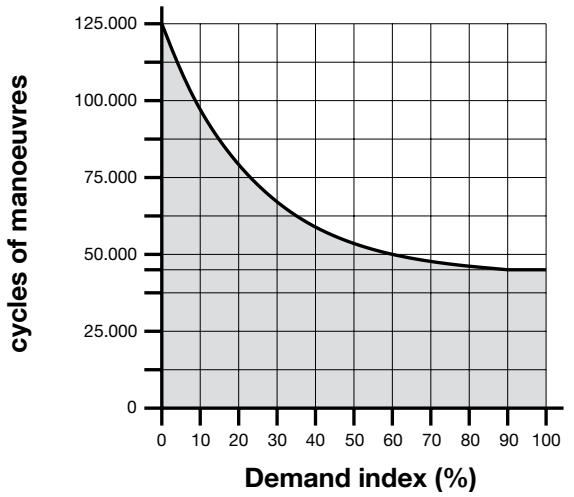
01. Calculate the demand index summing the values in percentage of the entries present in **Table 2** to each other;

02. In **Graph A**, from the value just found, trace a vertical line until you intersect the curve; from this point trace a horizontal line to cross the line of "cycles of manoeuvres". The value established is the estimated durability of your product.

The estimate of durability is performed on the basis of the design calculations and the results of tests carried out on prototypes. In fact, being an estimate, it does not give any guarantee on the actual duration of the product.

TABLE 2		Demand index		
		WG4024 WG4000 WG4000/V1	WG5024 WG5000 WG5000/V1	WG3524HS
Leaf weight:	> 100 kg	10 %	0 %	10 %
	> 200 kg	20 %	10 %	20 %
	> 300 kg	30 %	20 %	—
	> 400 kg	—	30 %	—
Leaf length:	1 - 2 m	20 %	0 %	10 %
	2 - 3 m	—	10 %	20 %
	3 - 3,5 m	—	20 %	—
Operating temperature:		20 %	20 %	20 %
Blind leaf:		15 %	15 %	15 %
Installation in windy area:		15 %	15 %	15 %

GRAPH A



Example of calculation of durability of a Wingo WG5024 gear motor (refer to Table 2 and Graph A):

- leaf weight = 200 kg (demand index= 10%)
- leaf length = 2.5 m (demand index = 20%)
- no other stress elements present

Total demand index = 20%

Durability estimate = 80.000 cycles of manoeuvre

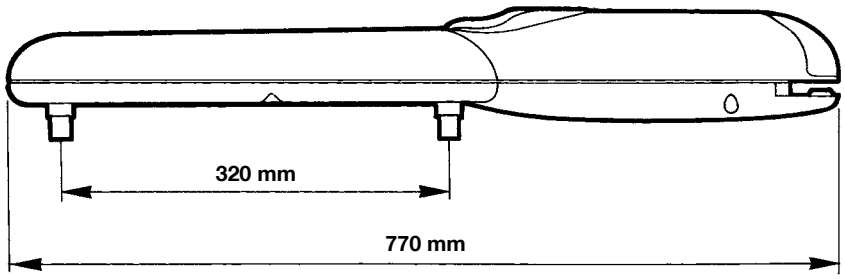
TECHNICAL FEATURES OF THE PRODUCT

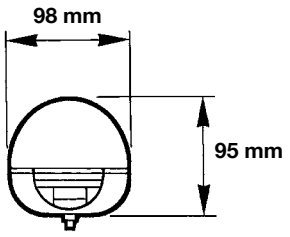
CAUTIONS: • The technical features set out refer to an ambient temperature of 20°C (± 5°C). • Nice S.p.a. reserves the right to make alterations to the product any time it deems it necessary, keeping the same functionality and destination of use.

	WG4024	WG5024
Type	electromechanical gear motor for gates or doors with leaf opening	
Power input	24 V ⎓	24 V ⎓
Maximum absorption	3,5 A	3,5 A
Nominal absorption	2 A	2 A
Maximum absorbed power	85 W	85 W
Nominal absorbed power	50 W	50 W
Protection grade	IP 44	IP 44
Travel	320 mm	470 mm
Speed loadless	0,018 m/s	0,016 m/s
Maximum thrust	1500 N	1500 N
Nominal thrust	500 N	500 N
Operating temperature	-20 °C to +55 °C (-4 °F to +131 °F)	
Cycles h at nominal torque	40	40
Durability	estimated between 80,000 and 250,000 cycles of manoeuvres according to the conditions set out in Table 2	
Insulation class	A	A
Dimensions (mm)	770 x 98 x 95 h	920 x 98 x 95 h
Weight (kg)	6	7

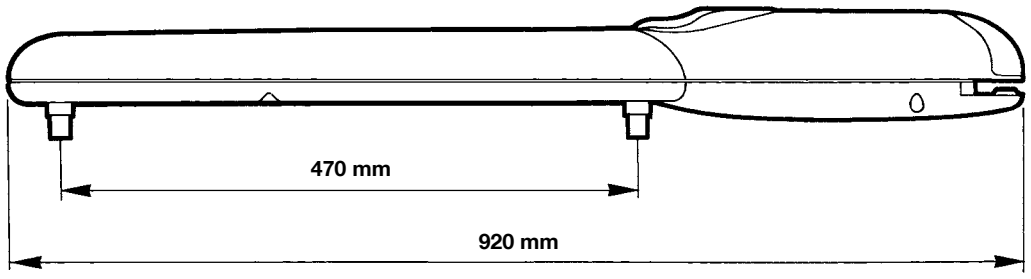
2

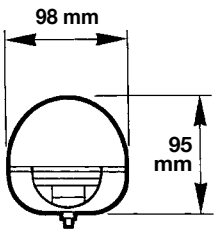
WG4024





WG5024





EN

Instructions and cautions for the user of the WG4024 - WG5024 gear motor

Before using the automation for the first time, have the fitter explain the origin of the residual risks, and dedicate a few minutes of your time to reading the instructions manual and cautions for the user provided by the fitter. Keep the manual for any future doubt and deliver it to any new proprietor of the automation.

CAUTION! –Your automation is a machine which faithfully performs your commands; a wrong or improper use will make it dangerous:

- **Do not command the movement of the automation if people, animals or things are within its range of action.**
- **It is totally forbidden to touch parts of the automation while the gate or door is moving!**
- **Transit is allowed only if the gate or door is completely open with the leaves stopped!**

• **Children:** an automation system guarantees a high level of safety, preventing the movement in the presence of people or things with its detection systems, and guaranteeing an always predictable and safe activation. It is any case prudent to forbid children to play close to the automation and, to avoid accidental activations, do not leave the remote control within their reach: it is not a toy!

• The product is not designed to be used by people (including children) whose physical, sensorial, or mental abilities are reduced, or those without experience or knowledge, unless they have been able to benefit, through intermediation of a person responsible for their safety, of supervision or instructions regarding the use of the product.

• **Anomalies**: As soon as you notice some anomalous behaviour by the automation, cut off the power to the system and unblock it manually. Do not attempt to perform any repair work, but ask the assistance of your trusted fitter: meanwhile the system can work as an unautomated opening, once the gear motor has been unblocked as described below.

• **Maintenance:** As with each machine your automation needs periodic maintenance so that it can function as long as possible and in complete safety. Agree a periodic maintenance plan with your fitter; Nice recommends maintenance every 6 months for normal domestic use, but this period may vary depending on the intensity of use: Any control, maintenance or repair work must be performed by qualified personnel.

• Even if you consider yourself able to perform the work, do not modify the system and the programming parameters or adjust the automation: it is the responsibility of the fitter.

• The inspection, periodic maintenance work and any repairs must be documented by the person who performs them and these documents must be kept by the owner of the system. The only work you can perform and which we recommend doing periodically is cleaning of the glass of the photocells and the removal of any leaves or stones which may obstruct the automatism. To prevent someone activating the gate, before proceeding, remember to unblock the automatism (as described below) and to clean it only with a sponge slightly dampened in water.

• **Disposal:** At the end of the life of the automation, ensure it is dismantled by qualified personnel and that the materials are recycled or disposed of according to local regulations in force.

• In the event of breakage or black out: As you await for the fitter to perform the work or for the electricity to return if the system is not equipped with buffer batteries, the automation can still be used. It is necessary to manually unblock the gear motor (see “Unblocking or blocking the gear motor”) and move the gate leaf manually as required.

MANUALLY RELEASING THE GEAR MOTOR

The gear motor is equipped with a mechanical system which allows to open and close the gate manually. These operations must be performed during electrical black outs or operating anomalies.

IMPORTANT! – The gear motor must only be manually release or re-engaged when the gate is stopped.

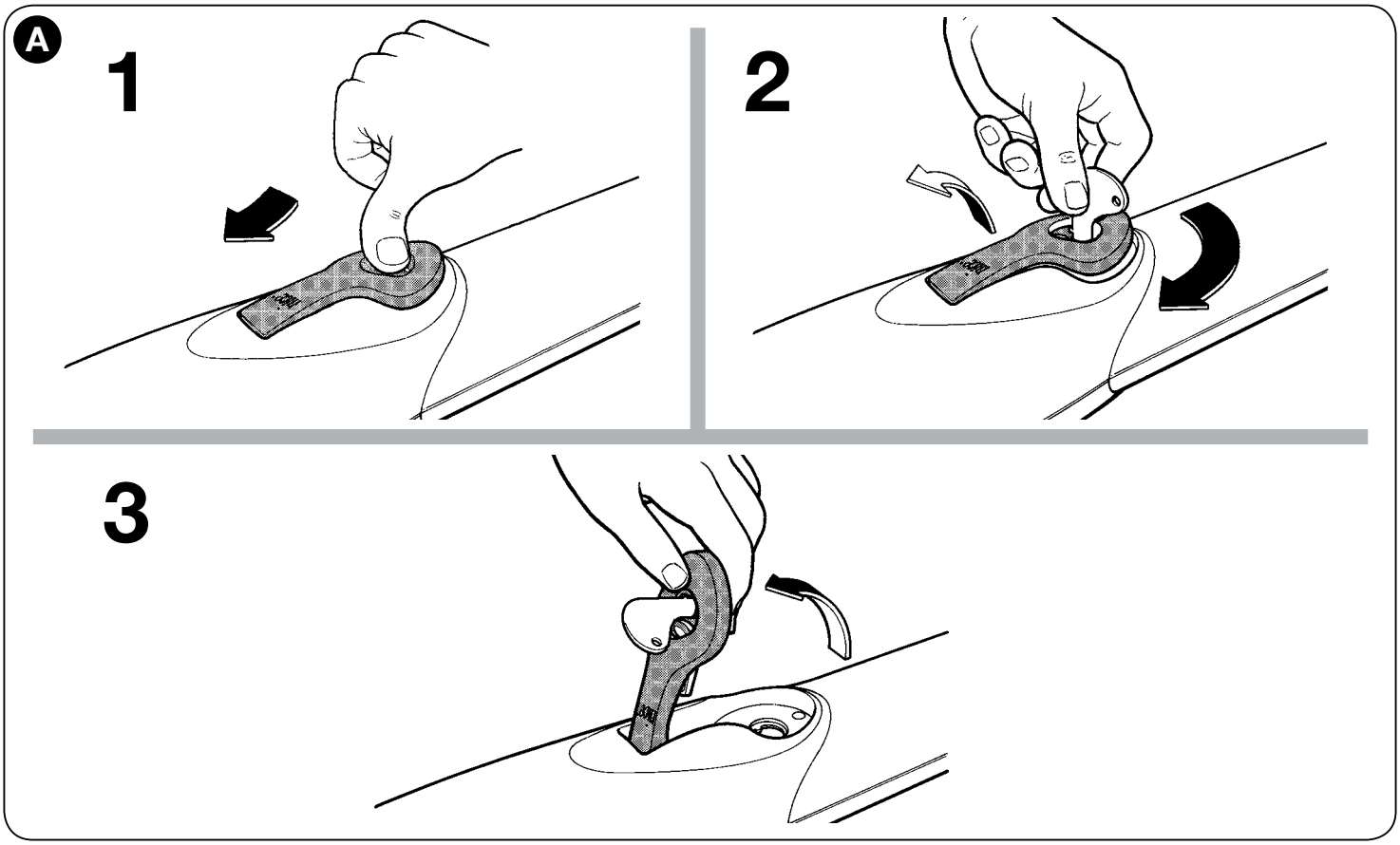
If there is an electric lock on the automation ensure the electric lock is unlocked be-fore moving the leaf.

MANUALLY RELEASING the gear motor (**fig. A**):

01. Slide the protection membrane and insert the key turning it clockwise:
02. Pull the handle upwards, accompanying it:
03. At this point, manually move the gate leaf in the position desired.

RELEASE the gear motor manually;

01. Close the handle and turn the key anti-clockwise;
02. Remove the key and close the protection membrane.



CE declaration of conformity and declaration of incorporation for a “quasi-machine”

Declaration in accordance with Directives: 2004/108/EC (EMC); 2006/42/EC (MD) annex II, part B

Note - The content of this declaration corresponds to the declaration made in the official document filed in the offices of Nice S.p.a., and particularly the latest version thereof available prior to the printing of this manual. The text contained here has been adapted to meet editorial requirements. A copy of the original declaration may be requested from Nice S.p.a. (TV) I.

Declaration number: **143/WINGO** Revision: **9** Language: **EN**

Name of manufacturer: NICE S.p.A.
Address: Via Pezza Alta N°13, 31046 Rustignè di Oderzo (TV) Italy.
Person authorized to provide technical documentation: NICE S.p.A. – Via Pezza Alta N°13, 31046 Rustignè di Oderzo (TV) Italy.
Product type: Electric gearmotor for swing gates.
Model / Type : WG4000, WG4000/V1, WG5000, WG5000/V1, WG4024, WG5024, WG3524HS
Accessories: No accessory.

The undersigned Mauro Sordini, as Chief Executive Officer, hereby declares under his own responsibility that the products identified above comply with the provisions of the following directives:

- DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND COUNCIL of December 15 2004 concerning alignment of Member States’ legislation regarding electromagnetic compatibility and abrogating directive 89/336/EEC, according to the following harmonized standards: EN 61000-6-2:2005; EN 61000-6-3:2007 + A1:2011.

The product also complies with the following directive in accordance with the requirements for “quasi-machines”:

- Directive 2006/42/EC OF THE EUROPEAN PARLIAMENT AND COUNCIL of May 17 2006 regarding machines and amending directive 95/16/EC (consolidated text).

– I declare that the pertinent technical documentation has been prepared in accordance with Annex VII B to Directive 2006/42/EC and that the following essential requirements have been met:
1.1.1 - 1.1.2 - 1.1.3 - 1.2.1 -1.2.6 - 1.5.1 -1.5.2 - 1.5.5 - 1.5.6 - 1.5.7 - 1.5.8 - 1.5.10 - 1.5.11.
– The manufacturer agrees to send the national authorities pertinent information on the “quasi-machine” in response to a motivated request without affecting its intellectual property rights.
– If the “quasi-machine” is operated in a European country with an official language other than the language used in this declaration, the importer must associate a translation with this declaration.
– The “quasi-machine” must not be operated until the final machine in which it is to be incorporated is declared to conform to the provisions of Directive 2006/42/EC, if applicable to it.

The product also complies with the following standards: EN 60335-1:2002 + A1:2004 + A11:2004 + A12:2006 + A2:2006 + A13:2008 + A14:2010 + A15:2011; EN 60335-2-103:2003 + A11:2009.

The parts of the product which are subject to the following standards comply with them: EN 13241-1:2003 + A1:2011; EN 12445:2002; EN 12453:2002; EN 12978:2003 + A1:2009.

Oderzo, 30 April 2015

Eng. **Mauro Sordini**
(Chief Executive Officer)